



TEAM 3 - PROJECT 3

MY FARM

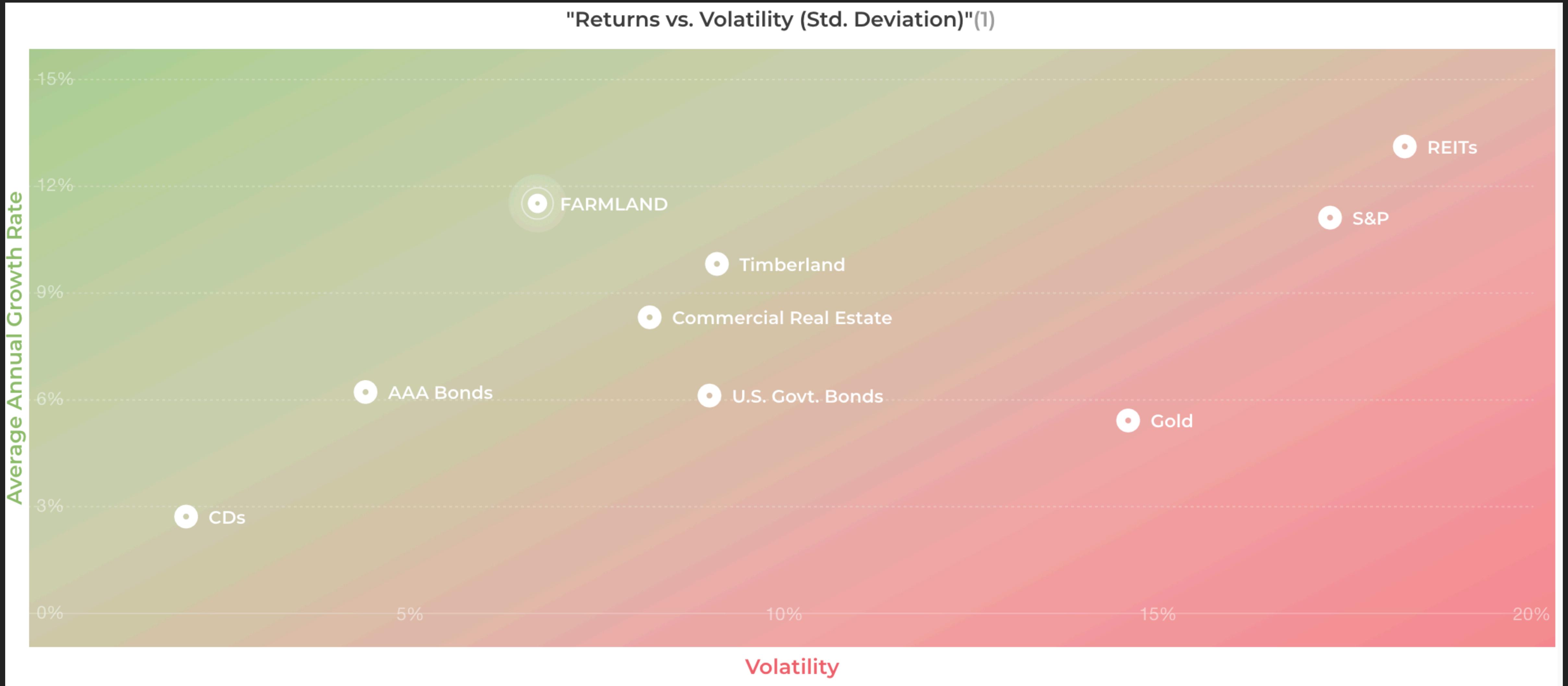
Powered by SegesCoin (SCN)

SegesCoin (SCN) is a blockchain-based platform for the agricultural industry.

By Alex, Brendan, Deep, Elias. Phillip & Pablo

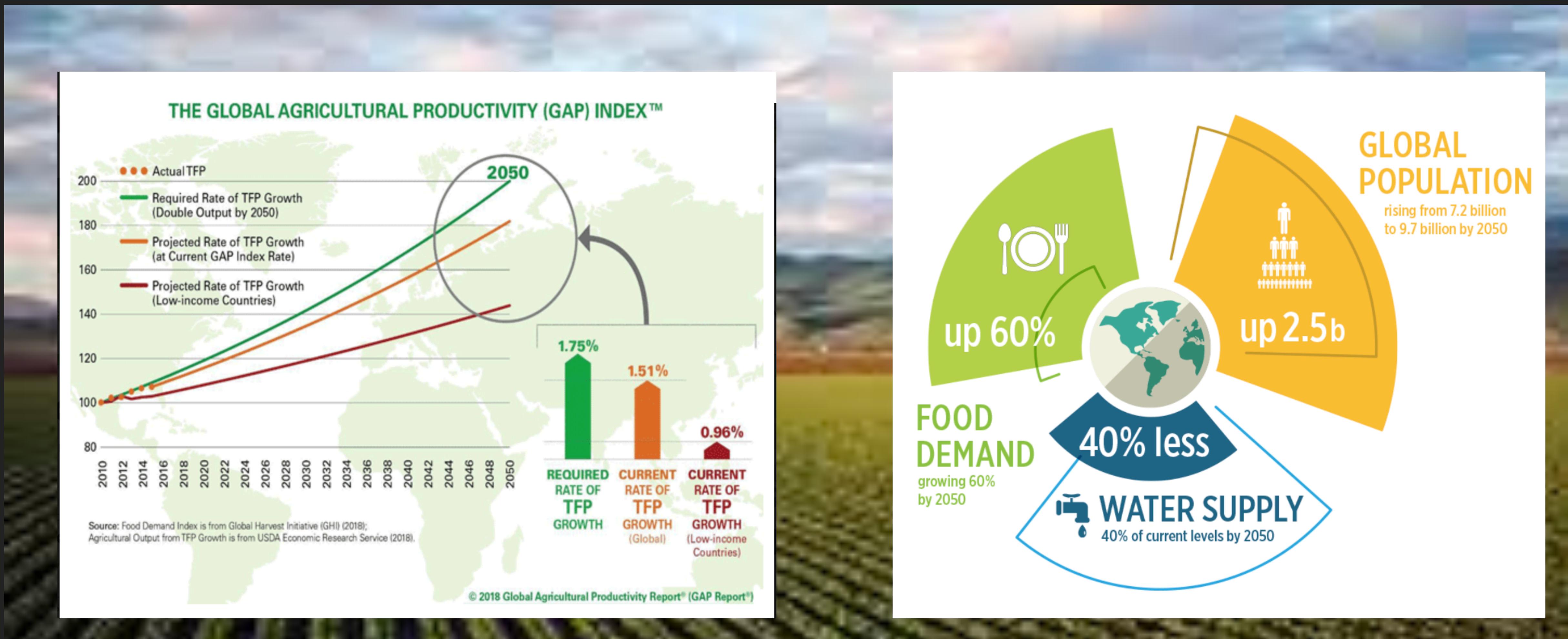
LAND INVESTING BUILDS EQUITY, PRESERVES CAPITAL, HEDGES AGAINST INFLATION

LAND IS ONE OF THE OLDEST INVESTMENT CLASSES, PRODUCING ENORMOUS WEALTH OVER GENERATIONS



FOOD DEMAND IS EXPECTED TO GROW ANYWHERE BETWEEN 53% TO 98% BY 2050

GLOBAL DEMAND FOR FOOD WILL CONTINUE TO GROW



"I RATHER OWN ALL THE FARMLAND IN THE US THAN ALL THE GOLD IN THE WORLD" W BUFFET

INVEST WHERE THE ULTRA HIGH NET WORTH DO



The New York Post

Bill Gates is now the largest farmland owner in America

Google Backs Farm-Focused Startup as 'AgTech' Blooms

Wall Street investors buying up farmland

Big-Money Investors Gear Up For A Trillion-Dollar Bet On Farmland

Jeff Bezos and other investors raise \$200 million for vertical farming startup Plenty

The Biggest Investment Opportunity You've Probably Never Heard Of

Agtech Sector Blooms As More Dollars and Startups Rush In

'I had a farm in Omaha': Warren Buffett dishes out investment advice

INVEST WHERE YOUR VALUES ARE

- ▶ Strict sustainable agricultural standards to help the environment
- ▶ Focus on small and family owned farms have a positive social impact

THE STANDARD ADDRESSES 13 SUSTAINABILITY PRINCIPLES:

- | | |
|---|---|
| 1. Sustainable Agriculture | 8. Protection of Special Sites |
| 2. Soil Health and Conservation | 9. Local Communities |
| 3. Protection of Water Resources | 10. Employees and Farm Labor |
| 4. Protection of Crops | 11. Legal and Regulatory Compliance |
| 5. Energy Use, Air Quality and Climate Change | 12. Management Review and Continual Improvement |
| 6. Waste and Material Management | 13. Tenant-Operated Operations |
| 7. Conservation of Biodiversity | |



THE FUTURE OF AGRICULTURE

USING THE LATEST AGRO TECH TO MANAGE AND UPGRADE OUR FARMS

Beriq

Beat The Weather With New Field Data

Every year a farmer faces revenue loss due to challenges introduced by unpredictable weather, shortage & higher labor cost, expensive equipments & technology, misguided application of chemical sprays international tradewars, low prices for commodities and many

Agworld

WHY DO THOUSANDS OF GROWERS AND SERVICE PROVIDERS TRUST AGWORLD?

Agriculture's Preferred Independent Farm Information Management Platform



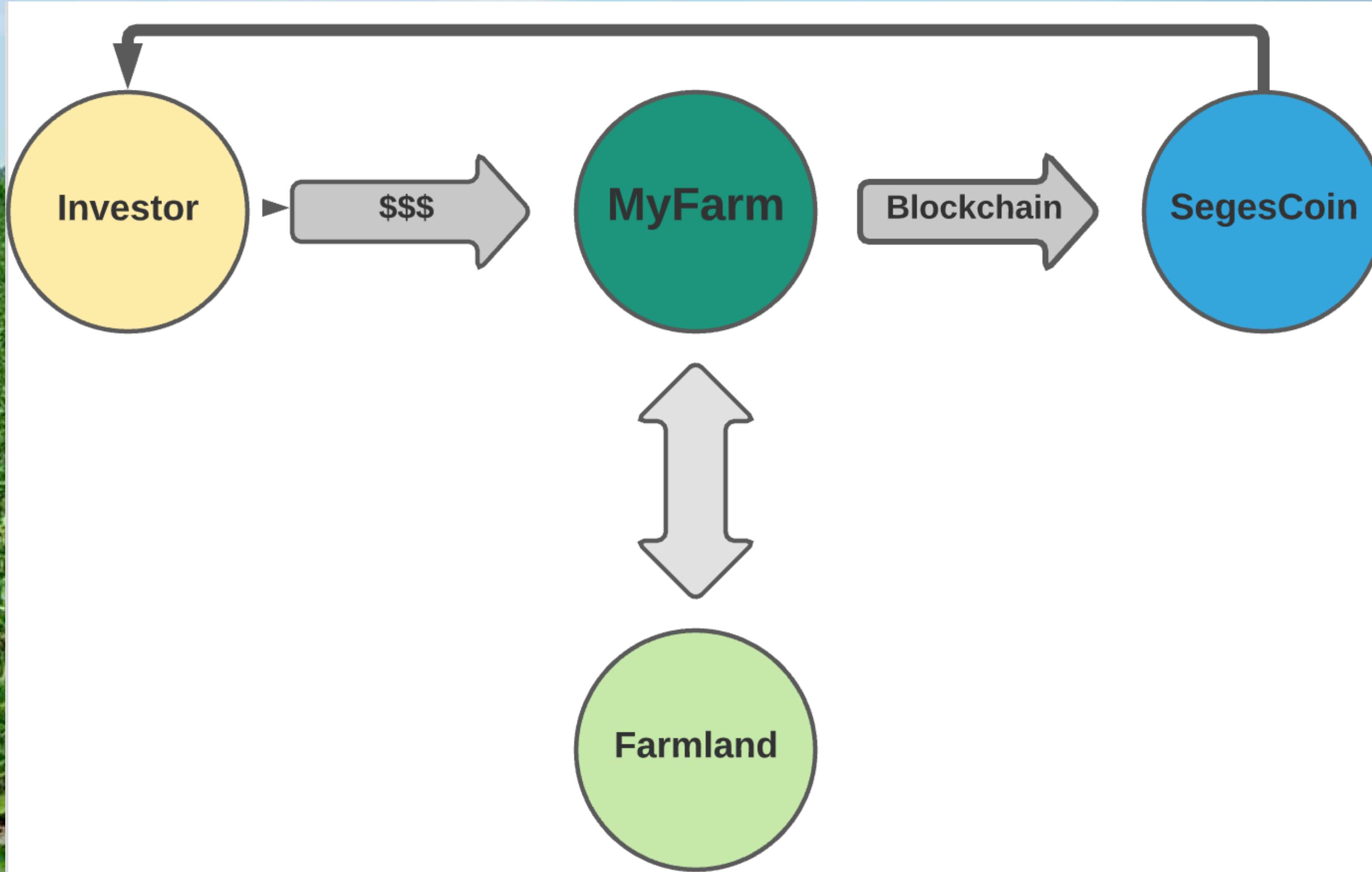
OUR AGRICULTURE DRONES

Provivi®: using modern science to help farmers protect crops in a naturally effective and sustainable way.

Created in 2013 by Nobel Laureate Dr. Frances Arnold and co-founders Pedro Coelho and Peter Meinhold, Provivi is a principles-based company with a mission to apply state of the art technologies to improve life and aspirations of farmers across the globe. Our focus is to create a new foundation for safer, affordable, and sustainable crop protection. Hear from our founders, how this is motivating them every day.

HOW IT WORKS

TOKENIZING YOUR FARM



HOW IT WORKS

YOU BUY A TOKEN FROM US WE TAKE CARE OF THE REST

- ▶ Initial crowdfunding aim to raise \$20mm
- ▶ Min initial investment \$5,000
- ▶ Max initial investment \$25,000
- ▶ 2 yr limit to acquire land or your money back
- ▶ We'll aim to list SegeCoin in as many exchanges as possible

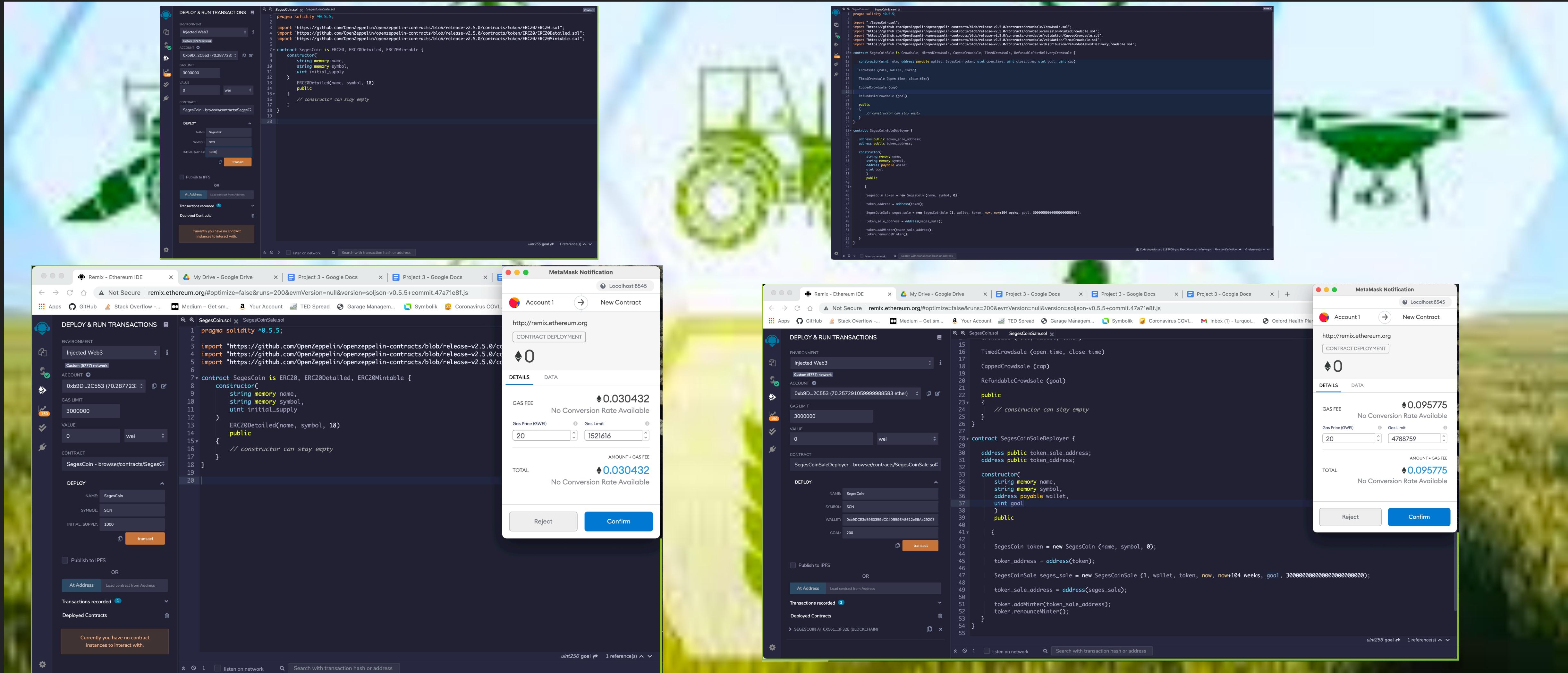


FARMLAND ACQUISITION PARAMETERS

- 
- An aerial photograph showing a patchwork of agricultural fields in various stages of cultivation. The fields are arranged in a grid-like pattern, with different colors representing different crops or soil types. Some fields appear green, while others are yellow or brown. A few small buildings or farm structures are visible among the fields.
- ▶ **Option 1 - Buy and lease back**
 - ▶ **Option 2 - Partial ownership subject to production standards**
 - ▶ **Small Plots - 2 to 25 acres**
 - ▶ **Closer to large urban centers**
 - ▶ **Geographically diversified**
 - ▶ **Agriculturally diversify**

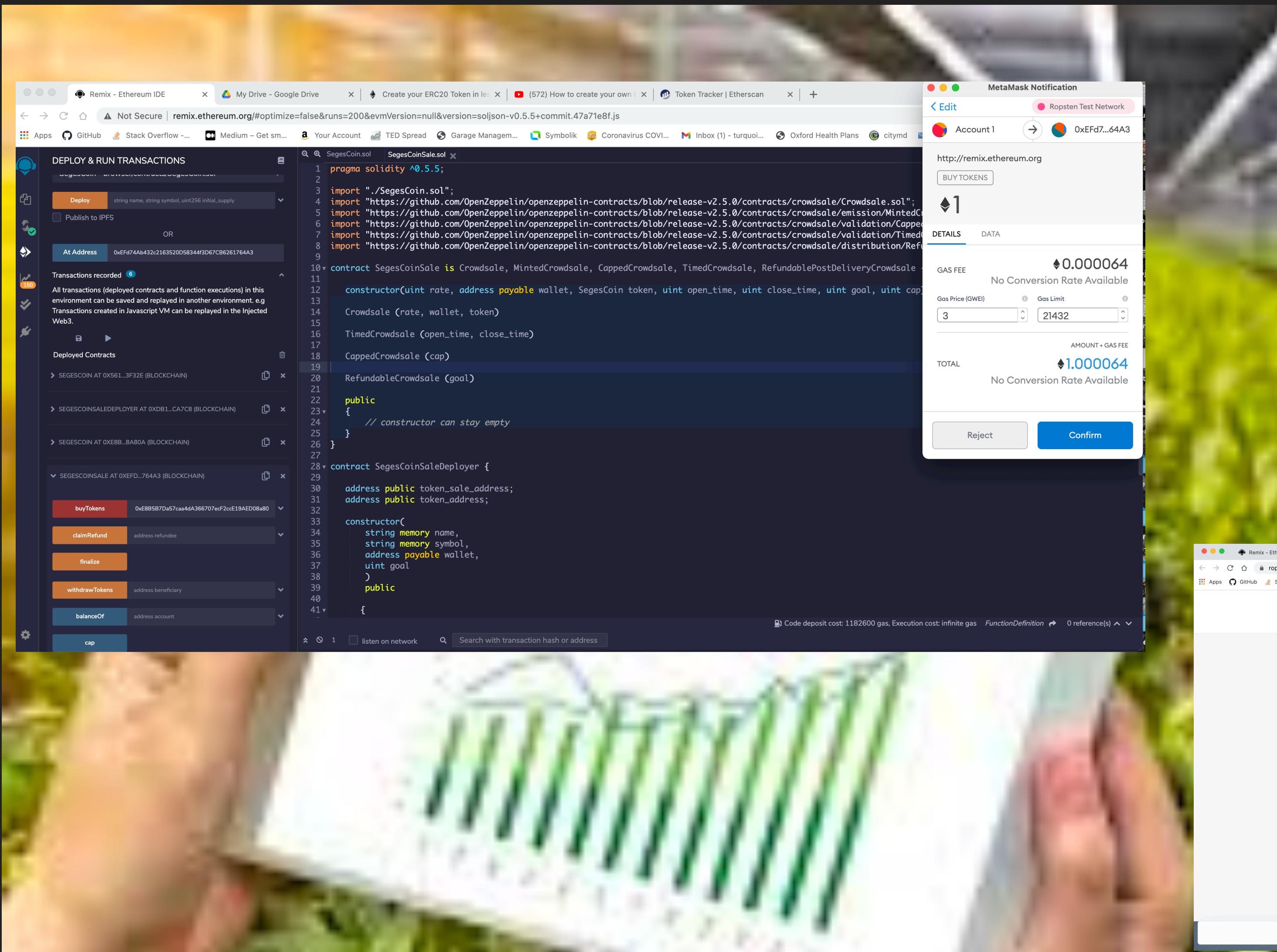
CREATING SEGESCOIN USING SOLIDITY, GANACHE AND BETAMAX

SMART CONTRACTS DESIGN IN REMIX



CREATING SEGESCOIN (SCN)

TESTING SMART CONTRACTS IN THE ROPSTEN NETWORK



Medium - Get sm... Your Account TED Spread Garage Managem... Symbolik CityMD C...

Ropsten Test Network

Account 1 / SCN

OSCN

Send Swap

You have no transactions

```
pragma solidity ^0.5.5;
import "./SegesCoin.sol";
import "https://github.com/OpenZeppelin/openzeppelin-contracts/blob/release-v2.5.0/contracts/crowdsale/Crowdsale.sol";
import "https://github.com/OpenZeppelin/openzeppelin-contracts/blob/release-v2.5.0/contracts/crowdsale/MintedCrowdsale.sol";
import "https://github.com/OpenZeppelin/openzeppelin-contracts/blob/release-v2.5.0/contracts/crowdsale/validation/TimedCrowdsale.sol";
import "https://github.com/OpenZeppelin/openzeppelin-contracts/blob/release-v2.5.0/contracts/crowdsale/validation/CappedCrowdsale.sol";
import "https://github.com/OpenZeppelin/openzeppelin-contracts/blob/release-v2.5.0/contracts/distribution/RefundableCrowdsale.sol";
contract SegesCoinSale is Crowdsale, MintedCrowdsale, CappedCrowdsale, TimedCrowdsale, RefundablePostDeliveryCrowdsale {
    constructor(uint rate, address payable wallet, SegesCoin token, uint open_time, uint close_time)
        Crowdsale(rate, wallet, token)
        TimedCrowdsale(open_time, close_time)
        CappedCrowdsale(cap)
        RefundableCrowdsale(goal)
    public
    {
        // constructor can stay empty
    }
}
contract SegesCoinSaleDeployer {
    address public token_sale_address;
    address public token_address;
    constructor(
        string memory name,
        string memory symbol,
        address payable wallet,
        uint goal
    )
    public
    {
        SegesCoin token = new SegesCoin (name, symbol, 0);
        token_address = address(token);
        SegesCoinSale seges_sale = new SegesCoinSale (1, wallet, token, now, now+104 weeks, goal, 30000000000000000000000000000000);
        token_sale_address = address(seges_sale);
        token.addMinter(token_sale_address);
        token.renounceMinter();
    }
}
```

Code deposit cost: 1182600 gas, Execution cost: infinite gas FunctionDefinition 0 reference(s) ▾

Ropsten Transaction Hash (Tx): 0x8b133b62e6c94b9f9bc0b8d63e24bd258f126b1de236ece5000620610ef68bc

Etherscan Ropsten Testnet Network

All Filters Search by Address / Txn Hash / Block / Token / Ens

Home Blockchain Tokens Misc Ropsten

Transaction Details

Overview State

[This is a Ropsten Testnet transaction only]

Transaction Hash: 0x8b133b62e6c94b9f9bc0b8d63e24bd258f126b1de236ece5000620610ef68bc

Status: Success

Block: 9820238 7 Block Confirmations

Timestamp: 1 min ago (Mar-12-2021 01:59:31 AM +UTC)

From: 0xb9dc3d5960359ddc40b59a861ee6aa292c553

To: 0xefd74ab432c2163520d58344fd67cb6261764a3

Value: 0 Ether (\$0.00)

Transaction Fee: 0.000064296 Ether (\$0.000000)

Gas Price: 0.000000003 Ether (3 Gwei)

Click to see More

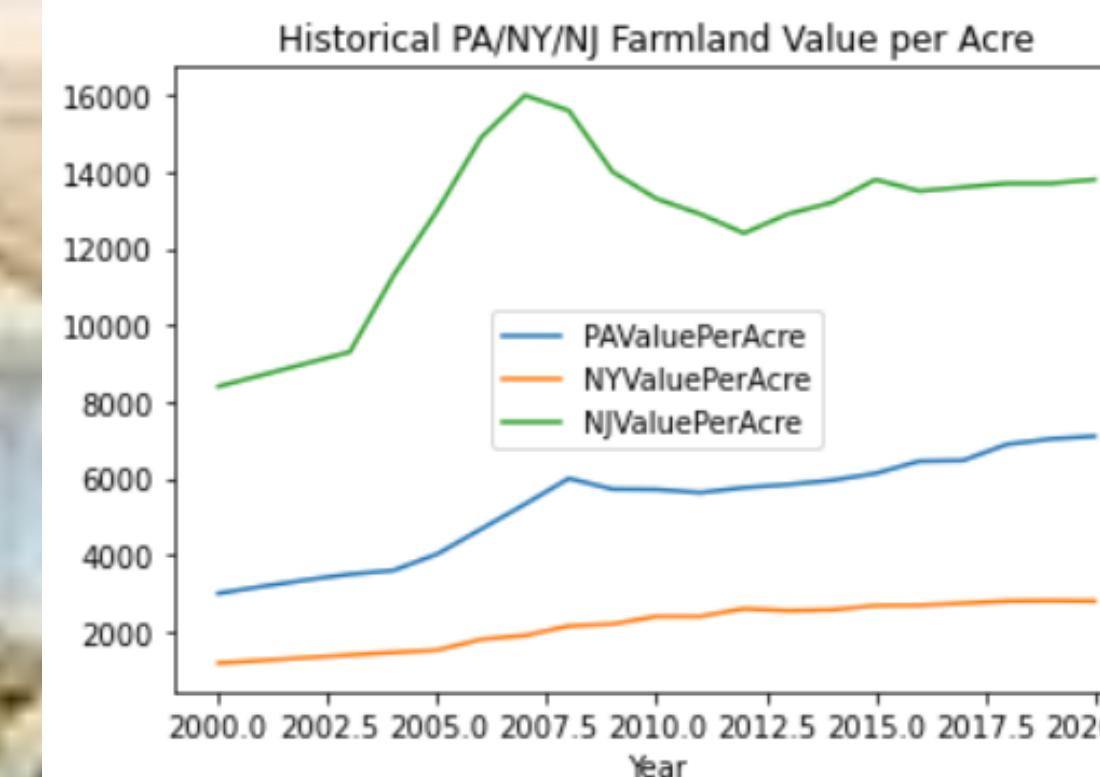
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WE USE MACHINE LEARNING TO HELP US FIND AND VALUE FARMLAND

LAND VALUATION

```
import pandas as pd
from nasspython import nass_api as na
# pip install nasspython: https://pypi.org/project/nasspython/
from statsmodels.tsa.arima_model import ARIMA
from pathlib import Path
import datetime as dt

USDA_API_KEY = 'C6C2F629-A5BF-3F27-916A-4F15189AD588'
# function inputs
# NY/NJ/PA
state_list = ['NEW YORK', 'NEW JERSEY', 'PENNSYLVANIA']
start_yr = 2000
end_yr = 2020
```



```
predictions = {}
for col in st_land_df.columns:
    model = ARIMA(st_land_df[col], order=(0, 1, 1))
    results = model.fit()
    predict_df = pd.DataFrame(results.forecast(steps=2)[0])
    predictions[col] = predict_df.iloc[1,0]
predictions
```

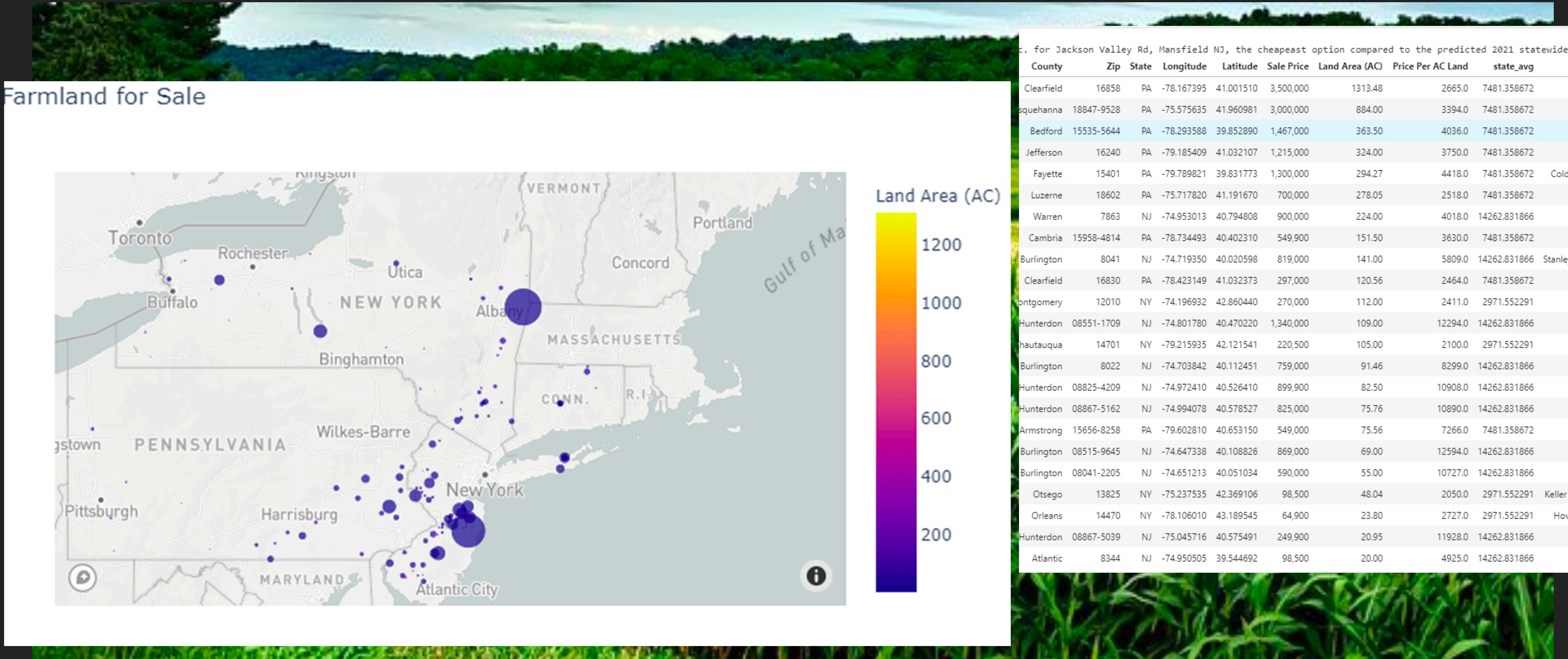
```
{'PAValuePerAcre': 7481.35867200686,
'NYValuePerAcre': 2971.5522905496096,
'NJValuePerAcre': 14262.831866186005}
```

Model produced 23 potential options...
Call Sig Schorr at NAI James E. Hanson, Inc. for Jackson Valley Rd, Mansfield NJ, the cheapeast option compared to the predicted 2021 statewide prices per acre.

	Address	City	County	Zip	State	Longitude	Latitude	Sale Price	Land Area (AC)	Price Per AC Land	state_avg	Listing Broker Company	Sale Company Contact
0	Rolling Stone Rd	Morrisdale	Clearfield	16858	PA	-78.167395	41.001510	3,500,000	1313.48	2665.0	7481.358672	Southbound Enterprises LLC	Bill Smith
1	117 Jefferson St	Susquehanna	Susquehanna	18847-9528	PA	-75.575635	41.960981	3,000,000	884.00	3394.0	7481.358672	Hilco Real Estate	Jeff Azuse
2	179 Allen Rd	Clearville	Bedford	15535-5644	PA	-78.293588	39.852890	1,467,000	363.50	4036.0	7481.358672	Jim Allen	Jim Allen
3	Sandy Hill Rd	Mayport	Jefferson	16240	PA	-79.185409	41.032107	1,215,000	324.00	3750.0	7481.358672	The Preferred Realty	Donald Powell

WE USE MACHINE LEARNING TO HELP US FIND AND VALUE FARMLAND

SCANNING APIs AND PLOTTING CURRENT FARMLAND OFFERINGS



ARE YOU READY TO INVEST ?

MYFARM - INVESTING IN FARMLAND MADE EASY

- ▶ THANK YOU FOR LISTENING
- ▶ ANY QUESTIONS?





WE'LL MISS YOU ALL!!!!